

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Gregory A. Hodge  
and Bennie L. Gibson**

Confirmation No.: **5021**

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Examiner: **Chenea Smith**

For: **METHODS AND SYSTEMS FOR INTERACTIVE TELEVISION**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPELLANT'S BRIEF PURSUANT TO 37 C.F.R. § 41.37**

This brief is being filed in support of Appellant's appeal from the rejections of claims 44-115 dated March 13, 2009. A Notice of Appeal was filed on February 4, 2009.

**1. REAL PARTY IN INTEREST**

OCHOA OPTICS, LLC is the real party in interest. The inventors in this case assigned their interest to WORLD THEATER, INC as recorded by the United State Patent and Trademark Office ("USPTO") on September 20, 2001 at reel 012183 and frame 0231. WORLD THEATER, INC granted a security interest in the present application to AMB GROUP, LLC as recorded by the USPTO on January 28, 2002 at reel 012342 and frame 0311, and on February 20, 2003 at reel 013438 and frame 0088. AMB GROUP, LLC foreclosed on its security interest and assigned its interest to EXODUS CAPITAL, LLC as recorded by the USPTO on March 28, 2003 at reel 013532 and frame 0208. EXODUS CAPITAL, LLC assigned its interest to OCHOA OPTICS, LLC as recorded by the USPTO on November 30, 2004 at reel 015402 and frame 0251.

**2. RELATED APPEALS AND INTERFERENCES**

No related appeals or interferences have been filed.

### 3. STATUS OF CLAIMS

Claims 1-43 are cancelled. Claims 44-115 are rejected. The rejections of claims 44-115 are appealed.

### 4. STATUS OF AMENDMENTS

A response was filed December 4, 2008, subsequent to the close of prosecution. Applicants proposed amendments to claim 44 to address informalities. The amendments were entered for the purposes of appeal, as stated in the Advisory Action dated December 23, 2008.

### 5. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter relates generally to interactive television, e.g., for promoting and selling products. One aspect of the independent claims is that an electronic file, which includes an interactive icon and a first content, is received along with a video signal including a second content. Further, instructions are generated which configure a set-top box to (1) overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal, and (2) display the first content if the interactive icon is selected. The video signal, the instructions for the set-top box, and the electronic file are combined into a first channel, and that first channel is combined with a second channel into a broadcast signal. Finally, the broadcast signal is transmitted to a set-top box.

The independent claims include a number of recitations in addition to those discussed above. The claim recitations are supported in applicants' specification at least as follows:

*Independent claim 44*

*44. A method, comprising:*

*receiving an electronic file, wherein the electronic file includes an interactive icon and first content; See paragraph 0055 (interactive content and icon received together).*

*receiving a video signal including second content; See paragraph 0037 (receiving content generated at another location).*

*generating instructions for a set-top box, wherein the instructions for the set-top box configure the set-top box to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box*

*configure the set-top box to display the first content if the interactive icon is selected; See paragraph 0033 (generating instructions for overlaying interactive icon on video content) and paragraph 0040 (generating "STB" instructions to be executed at a set top box).*

*combining the video signal, the instructions for the set-top box, and the electronic file together to form a first channel; See paragraph 0040 (content combined with instructions).*

*combining the first channel with a second channel to form a broadcast signal; and See paragraph 0040 (multiplexing channel with other content streams).*

*transmitting the broadcast signal to the set-top box. See paragraphs 0041-0042 (broadcast transmitted to user stations).*

*Independent claim 53*

*53. A computer readable storage medium including computer readable instructions, comprising:*

*instructions for receiving an electronic file, wherein the electronic file includes an interactive icon and first content; See paragraph 0055 (interactive content and icon received together).*

*instructions for receiving a video signal including second content; See paragraph 0037 (receiving content generated at another location).*

*instructions for generating instructions for a set-top box, wherein the instructions for the set-top box are configured to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box are configured to display the first content if the interactive icon is selected; See paragraph 0033 (generating instructions for overlaying interactive icon on video content) and paragraph 0040 (generating "STB" instructions to be executed at a set top box).*

*instructions for combining the video signal, the instructions for the set-top box, and the electronic file together to form a first channel; See paragraph 0040 (content combined with instructions).*

*instructions for combining the first channel with a second channel to form a broadcast signal; and See paragraph 0040 (multiplexing channel with other content streams).*

*instructions for transmitting the broadcast signal to the set-top box. See paragraphs 0041-0042 (broadcast transmitted to user stations).*

Independent claim 62

62. A method, comprising:

*receiving a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel; See paragraphs 0041-0042 (broadcast transmitted to user stations).*

*demultiplexing the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content; See paragraph 0042 (demultiplexing broadcast signal into channels).*

*processing the set-top box instructions to generate a composite signal, wherein the interactive icon in the electronic file is overlaid upon at least a portion of the second content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and See paragraph 0042 (processor executes instructions at the set top box).*

*outputting the composite signal. See paragraph 0042 (interactive channel is outputted to a display).*

Independent claim 77

77. A computer readable medium including computer readable instructions, comprising:

*instructions for receiving a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel; See paragraphs 0041-0042 (broadcast transmitted to user stations).*

*instructions for demultiplexing the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content; See paragraph 0042 (demultiplexing broadcast signal into channels).*

*instructions for processing the set-top box instructions to generate a composite signal, wherein interactive icon in the electronic file is overlaid upon at least a portion of the second content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and See paragraph 0042 (processor executes instructions at the set top box).*

*instructions for outputting the composite signal. See paragraph 0042 (interactive channel is outputted to a display).*

Independent claim 92

92. A system, comprising:

*a subsystem configured to receive an electronic file, wherein the electronic file includes an interactive icon and first content; See paragraph 0055 (interactive content and icon received together).*

*a subsystem configured to receive a video signal including second content; See paragraph 0037 (receiving content generated at another location).*

*a subsystem configured to generate instructions for a set-top box, wherein the instructions for the set-top box are configured to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box are configured to display the first content if the interactive icon is selected; See paragraph 0033 (generating instructions for overlaying interactive icon on video content) and paragraph 0040 (generating "STB" instructions to be executed at a set top box).*

*a subsystem configured to combine the video signal, the instructions for the set-top box, and the electronic file together to form a first channel; See paragraph 0040 (content combined with instructions).*

*a subsystem configured to combine the first channel with a second channel to form a broadcast signal; and (multiplexing channel with other content streams).*

*a subsystem configured to transmit the broadcast signal to the set-top box. See paragraphs 0041-0042 (broadcast transmitted to user stations).*

Independent claim 101

101. A set-top box, comprising:

*a signal input subsystem configured to receive a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel; See paragraphs 0041-0042 (broadcast transmitted to user stations).*

*a demultiplexing subsystem configured to demultiplex the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content; See paragraph 0042 (demultiplexing broadcast signal into channels).*

*a processor configured to process the set-top box instructions to generate a composite signal, wherein the interactive icon in the electronic file is overlaid upon at least a portion of*

*the second content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and See paragraph 0042 (processor executes instructions at the set top box).*

*a signal output subsystem configured to output the composite signal. See paragraph 0042 (interactive channel is outputted to a display).*

## **6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Applicants appeal the rejection of claims 44-115 under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a), including the following rejections.

### *Claim 44*

Applicants appeal the rejection of claim 44 under 35 U.S.C. § 102(b) as being anticipated by Broadwin, U.S. Patent No. 5,903,816 ("Broadwin").

### *Claims 53, 62, 77, 92, and 101*

Applicants appeal the rejection of claims 53, 62, 77, 92, and 101 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

### *Claim 48*

Applicants appeal the rejection of claim 48 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

### *Claims 57, 67, 82, 96, and 106*

Applicants appeal the rejection of claims 57, 67, 82, 96, and 106 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

### *Claims 45-47, 49-52, 54-56, 58-61, 63-66, 68-76, 78-81, 83-91, 93-95, 97-100, 102-105, and 107-115*

Applicants appeal the rejection of claims 45-47, 51, 52, 54-56, 60, 61, 63-67, 78-81, 84, 85, 93-95, 99, 100, 102-105, 108, and 109 under 35 U.S.C. § 102(b) as being anticipated by Broadwin. Applicants appeal the rejection of claims 49, 58, 68, 83, 97, 107 under 35 U.S.C. § 103(a) as being unpatentable over Broadwin in view of Yeo, U.S. Patent No. 6,219,837 ("Yeo"). Applicants appeal the rejection of claims 50, 59, 71, 86, 98, and 110 under 35 U.S.C. § 103(a) as being unpatentable over Broadwin in view of Yeo, further in view of Fernandez, U.S. Patent No. 6,339,842. Applicants appeal the rejection of claims 72,

87, and 111 under 35 U.S.C. § 103(a) as being unpatentable over Broadview in view of Herrington, U.S. Patent No. 6,922,843. Applicants appeal the rejection of claims 73, 88, and 112 under 35 U.S.C. § 103(a) as being unpatentable over Broadview in view of Keren, U.S. Publication No. 2001/0024469. Applicants appeal the rejection of claims 74-75, 98-90, and 113-114 under 35 U.S.C. § 103(a) as being unpatentable over Broadview in view of Ramsey Catan, U.S. Publication No. 2002/0073416. Applicants appeal the rejection of claims 76, 91, and 115 under 35 U.S.C. § 103(a) as being unpatentable over Broadview in view of Ramsey Catan, further in view of Malec, U.S. Patent No. 5,490,060.

## 7. ARGUMENT

Contrary to the assertions in the Official Action of September 4, 2008 (“Official Action”), Broadwin fails to anticipate the independent claims in applicants’ application. Further, Broadwin fails to anticipate the matter recited in a number of the dependent claims in applicants’ application.

### A. Law of anticipation

The law of anticipation is very well developed and precise. “A claim is anticipated *only if each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814, F.2d 628, 631 (Fed. Cir. 1987) (emphasis added); see also *In re Crish* 393 F.3d 1253, 1256 (Fed. Cir. 2004) and *Celeritas Techs. Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1360 (Fed. Cir. 1998).

Moreover, when a recitation of the claim is not found expressly in the single prior art reference, the recitation may be found inherent in the reference if the missing descriptive material is “necessarily present.” *Continental Can Co. v. Monsanto Co.*, 20 U.S.P.Q.2d 1749, 1749 (Fed. Cir. 1991); see also *Scaltech Inc. v. Retec/Tetra L.L.C.*, 51 U.S.P.Q.2d 1055, 1059 (Fed. Cir. 1999) and *Trintec Industries Inc. v. Top-U.S.A. Corp.*, 63 U.S.P.Q.2d 1597, 1599 (Fed. Cir. 2002). However, inherency may **not** be established by probability or possibility; “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency.” *Trintec Industries*, 63 U.S.P.Q.2d at 1599. Thus, in order for the applicants’ claims to be anticipated by Broadwin, ***each and every*** element of the claims must either be taught explicitly by Broadwin or be necessarily present by the teachings of Broadwin.

*B. Claim 44*

Applicants respectfully submit that claim 44 is not anticipated by Broadwin. Claim 44 recites receiving (1) an interactive icon, (2) a first content, and (3) a video signal including a second content. Further, claim 44 recites generating instructions to configure a set-top box (1) to overlay the received interactive icon on the received second content, and (2) to display the received first content if the received interactive icon is selected:

receiving an electronic file, wherein the electronic file includes an interactive icon and first content;

receiving a video signal including second content;

generating instructions for a set-top box, wherein the instructions for the set-top box configure the set-top box to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box configure the set-top box to display the first content if the interactive icon is selected;

Applicants respectfully submit that the cited portions of Broadwin fail to teach, expressly or inherently, generating instructions for a set-top box to overlay the received interactive icon on at least a portion of the received second content, and to display the received first content if the interactive icon is selected.

In the final Office Action, the examiner rejected claim 44 as being anticipated by Broadwin as follows:

receiving an electronic file (interactive application content, see col 5, lines 2-10), wherein the electronic file includes an interactive icon (see selections options, see col 7, lines 34-41) and first content (see col 5, lines 2-10),

receiving a video signal including second content (audiovisual content, see col 4, lines 57-63),

generating instructions for a set-top box (see col 5, lines 1-10), wherein the instructions for the set-top box are configured to overlay the interactive icon (see selections options, see col 7, lines 34-41) in the electronic file (interactive application content, see col 5, lines 2-10) on at least a portion of the second content (audiovisual content, see col 4, lines 57-63) in the video signal (see col 7, lines 28-41) and the instructions for the set-top box are configured to display the first content if the interactive icon is selected (see col 7, lines 48-53).

(Final Rejection, page 2.) Thus, the examiner cited to col. 5, lines 1-10 of Broadwin as teaching both receiving an electronic file (Broadwin's electronic file) and generating instructions for a set-top box based on the received first content, second content and interactive icon. This portion of Broadwin states:

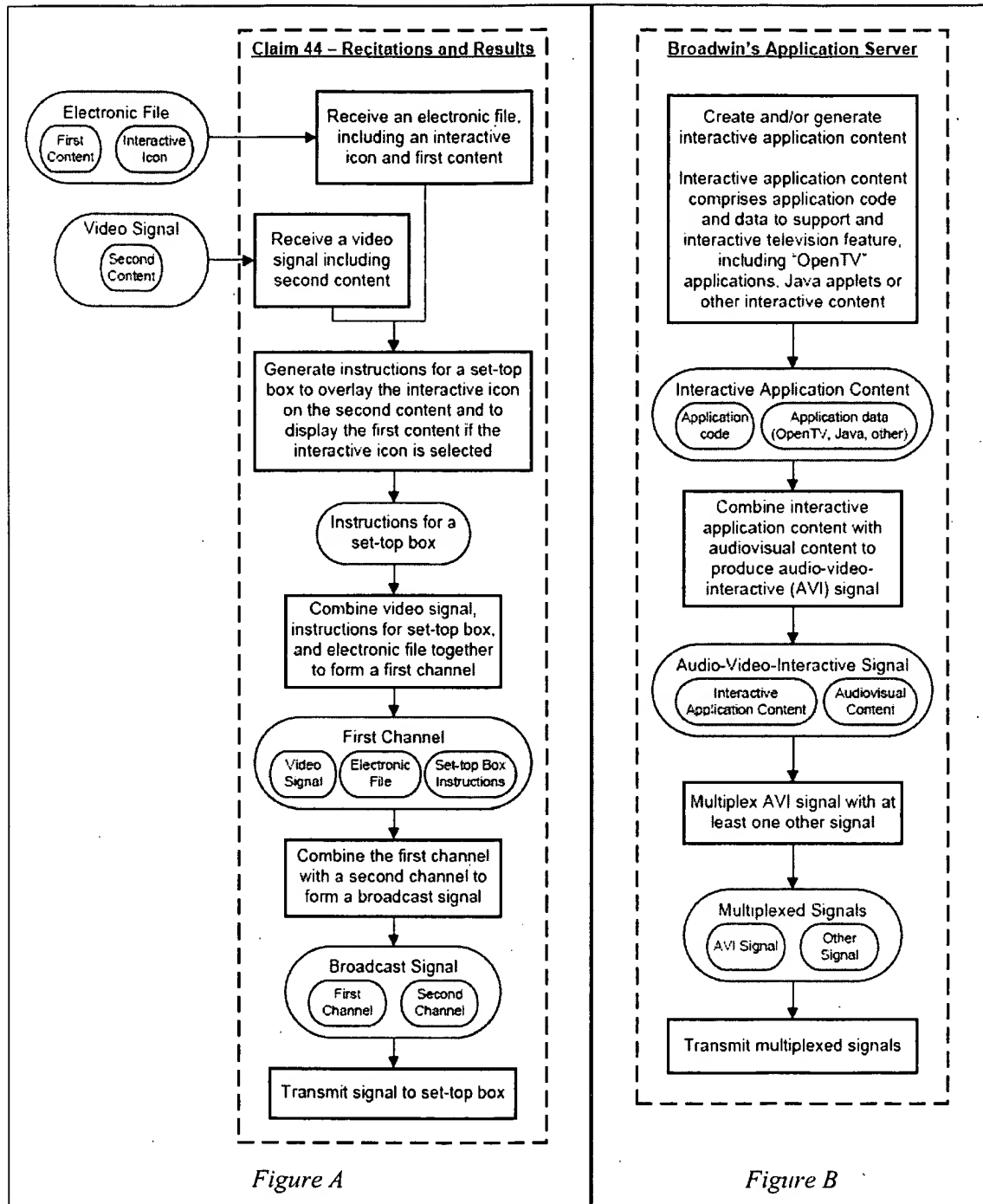


The broadcast center also includes an application server *for creating and/or generating interactive application content. The interactive application content comprises application code and data which is designed to be executed by a processor within a set top box* or television to support an interactive television feature. The application server is preferably configured for generating or providing "OpenTV" interactive applications. The application server may also provide "Java" applets or other interactive program content, as desired.

(Broadwin, col. 5, ll. 1-10; emphasis added, figure element numbers removed.) In this cited portion, Broadwin teaches "creating and/or generating...interactive application content [which] comprises application code and data...to be executed...within a set-top box." (*Id.*) Thus, Broadwin teaches creating and/or generating content which includes both (1) the interactive data and (2) the application code for executing the interactive application by the set top box.

In contrast to the teachings of Broadwin and the examiner's interpretation of Broadwin, claim 44 recites "receiving...an interactive icon and first content" and "generating instructions for a set-top box...to overlay the interactive icon...on at least a portion of the second content...[and] to display the first content if the interactive icon is selected." While Broadwin teaches generating the interactive data and the interactive application code, claim 44 recites receiving an interactive icon and a first content and generating instructions for overlaying the received icon on the received second content and displaying the received first content. Thus, Broadwin fails to explicitly teach "receiving...an interactive icon and first content" and "generating instructions for a set-top box...to display the first content if the interactive icon is selected," as recited by claim 44.

To make the differences between Broadwin and the recitations of claim 44 more apparent, applicants provide Figures A and B below. Figure A depicts a non-limiting example of the recitations of claim 44 and Figure B depicts the server described in Broadwin, col. 5, ll. 1-23. *Figure A is for illustration purposes only and is not intended to limit the scope of the claim in any way.*



**Figure A** depicts recitations of claim 44, including receiving a first content, an interactive icon, and a second content, and generating instructions for a set-top box based on the received first content, interactive icon, and second content.

**Figure B** depicts Broadwin's teaching that an application server creates and/or generates interactive icon content which includes creating and/or generating both interactive application code and interactive application data.

Looking at Figure A, claim 44 recites receiving a first content, an interactive icon, and a second content, and then generating instructions for a set-top box based on the *received* first content, interactive icon, and second content. Looking at Figure B, it is apparent that Broadwin teaches generating both the interactive application code and the interactive application data at the application server. By teaching that the interactive application code and content are generated by the application server, Broadwin fails to teach, and arguably teaches away from, generating instructions for a set-top box based on *received* first content, interactive icon, and second content. For at least this reason and the reasons discussed above, applicants submit that Broadwin fails to explicitly teach all the recitations of claim 44. Therefore, Broadwin fails to explicitly anticipate claim 44.

As noted above, where a reference does not explicitly teach a claim recitation, it may still anticipate inherently if that missing recitation is necessarily present in the reference. However, it is not enough for a possibility or probability of the missing matter to be present. *Trintec Industries*, 63 U.S.P.Q.2d at 1599. Here, the recitations of claim 44 missing in Broadwin, namely “receiving...an interactive icon and first content” and “generating instructions for a set-top box...to display the first content if the interactive icon is selected,” are not necessarily present in Broadwin. Broadwin explicitly teaches generating interactive content, not receiving content. Further, Broadwin explicitly teaches generating instructions for the set-top box based on generated content, not based on received content. Therefore, Broadwin fails to inherently anticipate “receiving...an interactive icon and first content” and “generating instructions for a set-top box...to display the first content if the interactive icon is selected” of claim 44 because neither recitation is necessarily present in Broadwin.

In the Advisory Action, the examiner further states that she “believes that if instructions are configured to perform a task, and the instructions are stored on a device to be executed by a processor, then the device is configured to perform the task.” (Advisory Action, page 2.) Applicants respectfully submit that the issue raised by the examiner’s argument (i.e., whether Broadwin teaches generating any instructions for a set-top box) does not cure the deficiencies of Broadwin discussed above. Specifically, the examiner does not present any argument that Broadwin teaches receiving a first content, an interactive icon, and a second content, and generating instructions for a set-top box for overlaying the *received* icon on the *received* second content and displaying the *received* first content. Accordingly, applicants submit that the examiner’s arguments fail to overcome the deficiencies of Broadwin discussed above.

Applicants also understand the examiner's statements in the Advisory Action to indicate that the examiner believes that Broadwin inherently anticipates the missing recitations of claim 44. In order to inherently teach the recitations of claim 44, those recitations must be "necessarily present" in the teachings of Broadwin without leaving any possibility of another alternative. *Trintec Industries*, 63 U.S.P.Q.2d at 1599. However, the teachings of Broadwin do not inherently teach generating instructions for a set-top box to overlay the received interactive icon on at least a portion of the received second content, and to display the received first content if the interactive icon is selected, as recited by claim 44. As noted above, Broadwin explicitly teaches generating program code with the code for the interactive content. Thus, because Broadwin expressly teaches that the interactive content can be generated, Broadwin does make it necessary for instructions to be generated for overlaying a received interactive icon on a portion of a received second content. Therefore, Broadwin fails to inherently teach those recitations of claim 44 which are not expressly taught by Broadwin.

For at least the reasons discussed above, applicants respectfully submit that Broadwin fails to anticipate claim 44. Accordingly, applicants respectfully request reversal of the examiner's rejection of claim 44 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

*C. Claims 53, 62, 77, 92, and 101*

The examiner rejected claims 53, 62, 77, 92, and 101 for the same reasons as the rejection of claim 44. For at least the reasons discussed above, applicants respectfully submit that Broadwin fails to anticipate claims 53, 62, 77, 92 and 101. Accordingly, applicants respectfully request reversal of the examiner's rejection of claims 53, 62, 77, 92 and 101 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

*D. Claim 48*

Claim 48 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Broadwin. Claim 48 also depends from claim 44. In addition to depending from an independent claim which is not anticipated by Broadwin, applicants submit that the subject matter of claim 48 is not anticipated by Broadwin. Specifically, the cited portions of Broadwin fail to teach "wherein the first content includes a purchasing screen for purchasing the product on at least a portion of the second content in the video signal" as recited by claim 48.

According to Broadwin, a user "may choose a selection or button displayed on the screen to view a linked still image[.]. The user or viewer may also choose a selection or

button to order a product.” (Broadwin at col. 7, lines 48-52). Broadwin states that the purchasing screen is a linked still image loaded from a different channel, see, e.g., Broadwin at col. 6, line 26-27 and Broadwin at col. 6, lines 34-35 stating: “MPEG stills are transmitted on the one or more still image channels” and “selections may reference other MPEG stills, or may be used to order information or products.” However, Broadwin fails to disclose that a purchasing screen for purchasing the product is displayed “on at least a portion of the second content in the video signal,” as recited by claim 48. For at least the reasons given above, applicants respectfully submit that Broadwin fails to anticipate claim 48. Accordingly, applicants respectfully request reversal of the examiner’s rejection of claim 48 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

*E. Claims 57, 67, 82, 96, and 106*

The examiner rejected claims 57, 67, 82, 96, and 106 for the same reasons as the rejection of claim 48. For at least the reasons discussed above, applicants respectfully submit that Broadwin fails to anticipate claims 57, 67, 82, 96, and 106. Accordingly, applicants respectfully request reversal of the examiner’s rejection of claims 57, 67, 82, 96, and 106 under 35 U.S.C. § 102(b) as being anticipated by Broadwin.

*F. Claims 45-47, 49-52, 54-56, 58-61, 63-66, 68-76, 78-81, 83-91, 93-95, 97-100, 102-105, and 107-115*

Dependent claims 45-47, 49-52, 54-56, 58-61, 63-66, 68-76, 78-81, 83-91, 93-95, 97-100, 102-105, and 107-115 depend, directly or indirectly, from claims 44, 53, 62, 77, 92, and 101. The rejections of claims 45-47, 49-52, 54-56, 58-61, 63-66, 68-76, 78-81, 83-91, 93-95, 97-100, 102-105, and 107-115 rely on the rejections of the independent claims from which they depend. Inasmuch as applicants appeal the rejections of the independent claims and being patentable over the cited art, applicants appeal the rejections of dependent claims 45-47, 49-52, 54-56, 58-61, 63-66, 68-76, 78-81, 83-91, 93-95, 97-100, 102-105, and 107-115 under 35 U.S.C. §§ 102(b) and 103(a).

*G. Conclusion*

For the foregoing reasons, applicants respectfully submit that the cited portions of Broadwin fail to anticipate claims 44, 53, 62, 77, 92, and 101. Applicants further submit that the cited portions of Broadwin fail to anticipate claims 48, 57, 67, 82, 96, and 106. Further, the rejections of dependent claims 45-52, 54-61, 63-76, 78-91, 93-100, and 102-115 rely on

the rejection using Broadwin to anticipate the independent claims. Accordingly, applicants submit that claims 44-115 are patentably defined over the cited art, and respectfully request reversal of the examiner's rejections of claims 44-115.

**8. CLAIMS APPENDIX**

1. – 43. (Canceled)

44. A method, comprising:

receiving an electronic file, wherein the electronic file includes an interactive icon and first content;

receiving a video signal including second content;

generating instructions for a set-top box, wherein the instructions for the set-top box configure the set-top box to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box configure the set-top box to display the first content if the interactive icon is selected;

combining the video signal, the instructions for the set-top box, and the electronic file together to form a first channel;

combining the first channel with a second channel to form a broadcast signal; and

transmitting the broadcast signal to the set-top box.

45. The method of claim 44, further comprising:

receiving an audio signal associated with the video signal; and

combining the audio signal, the video signal, the instructions for the set-top box, and the electronic file together to form a first channel.

46. The method of claim 44, wherein the first content in the electronic file comprises graphics and text.

47. The method of claim 44, wherein the video signal depicts a product.

48. The method of claim 47, wherein the first content includes a purchasing screen for purchasing the product on at least a portion of the second content in the video signal.

49. The method of claim 44, wherein the video signal includes a primary video component and a secondary video component, wherein the primary video component comprises a moving video image and the secondary video component comprises a static video image.
50. The method of claim 49, wherein the electronic file includes information about a current event and the instructions for the set-top box are configured to overlay the information about the current event on the static video image.
51. The method of claim 44, wherein the first content includes a catalog of products, and the set-top box instructions are configured to overlay the catalog of products on at least a portion of the second content in the video signal.
52. The method of claim 44, wherein the electronic file includes an advertisement, and the set-top box instructions are configured to overlay the advertisement on at least a portion of the second content in the video signal.
53. A computer readable storage medium including computer readable instructions, comprising:
- instructions for receiving an electronic file, wherein the electronic file includes an interactive icon and first content;
  - instructions for receiving a video signal including second content;
  - instructions for generating instructions for a set-top box, wherein the instructions for the set-top box are configured to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box are configured to display the first content if the interactive icon is selected;
  - instructions for combining the video signal, the instructions for the set-top box, and the electronic file together to form a first channel;
  - instructions for combining the first channel with a second channel to form a broadcast signal; and
  - instructions for transmitting the broadcast signal to the set-top box.
54. The computer readable storage medium of claim 53, further comprising:



instructions for receiving an audio signal associated with the video signal; and  
instructions for combining the audio signal, the video signal, the instructions for the set-top box, and the electronic file together to form a first channel.

55. The computer readable storage medium of claim 53, wherein the first content in the electronic file comprises graphics and text.

56. The computer readable storage medium of claim 53, wherein the video signal depicts a product.

57. The computer readable storage medium of claim 56, wherein the first content includes a purchasing screen for purchasing the product on at least a portion of the second content in the video signal.

58. The computer readable storage medium of claim 53, wherein the video signal includes a primary video component and a secondary video component, wherein the primary video component comprises a moving video image and the secondary video component comprises a static video image.

59. The computer readable storage medium of claim 58, wherein the electronic file includes information about a current event and the instructions for the set-top box are configured to overlay the information about the current event on the static video image.

60. The computer readable storage medium of claim 53, wherein the first content includes a catalog of products, and the set-top box instructions are configured to overlay the catalog of products on at least a portion of the second content in the video signal.

61. The computer readable storage medium of claim 53, wherein the electronic file includes an advertisement, and the set-top box instructions are configured to overlay the advertisement on at least a portion of the second content in the video signal.

62. A method, comprising:

receiving a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel;

demultiplexing the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content;

processing the set-top box instructions to generate a composite signal, wherein the interactive icon in the electronic file is overlaid upon at least a portion of the second content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and outputting the composite signal.

63. The method of claim 62, wherein the first channel further comprises an audio signal associated with the video signal.

64. The method of claim 62, wherein the first content comprises graphics and text.

65. The method of claim 62, wherein the video signal depicts a product.

66. The method of claim 65, wherein the first content comprises an interactive purchasing screen for the product.

67. The method of claim 66, further comprising:  
receiving a signal indicative of a selection of the interactive icon; and  
processing the set-top box instructions to overlay the interactive purchasing screen for the product over at least a portion of the second content in the video signal.

68. The method of claim 62, wherein the composite signal comprises a primary video component comprising a moving video image and a secondary video component comprising a static video image.

69. The method of claim 62, further comprising:

processing the set-top box instructions to overlay an interactive catalog on at least a portion of the second content in the video signal using a catalog of products stored in the electronic file.

70. The method of claim 62, further comprising:

processing the set-top box instructions to overlay an interactive advertisement on at least a portion of the second content in the video signal using at least an advertisement stored in the electronic file.

71. The method of claim 68, further comprising:

processing the set-top box instructions to overlay information about current events on at least a portion of the static video image using information about the current events stored in the electronic file.

72. The method of claim 70, further comprising:

receiving a customer I.D. number associated with a permission level;  
comparing the permission level associated with the customer I.D. number to a permission level associated with the advertisement stored in the electronic file; and  
generating a signal to overlay the interactive advertisement over at least a portion of the second content in the video signal when the permission level associated with the customer I.D. is greater than the permission level associated with the advertisement stored in the electronic file.

73. The method of claim 70, further comprising:

generating a signal to overlay the interactive advertisement on at least a portion of the second content in the video signal for a predetermined time period; and  
generating a signal to overlay a second interactive advertisement on at least a portion of the second content in the video signal after the predetermined time period has elapsed.

74. The method of claim 67, further comprising:

outputting the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;  
receiving a signal to purchase the product;

receiving a customer I.D. number associated with a permission level;  
determining, by a set-top box, if the permission level associated with the customer I.D. number is greater than a permission level associated with the product; and  
authorizing, by the set-top box, the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the product.

75. The method of claim 67, further comprising:

outputting the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;

receiving a signal to purchase the product, wherein the product has a price;

receiving a customer I.D. number associated with a permission level;

determining, by a set-top box, if the permission level associated with the customer I.D. number is greater than a permission level associated with the price of the product; and

authorizing, by the set-top box, the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the price of the product.

76. The method of claim 75, further comprising:

storing information indicative of the purchase of the product in a purchase buffer of the set-top box; and

connecting to an e-commerce server to transfer the information indicative of the purchase of the product to the e-commerce server.

77. A computer readable medium including computer readable instructions, comprising:

instructions for receiving a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel;

instructions for demultiplexing the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content;

instructions for processing the set-top box instructions to generate a composite signal, wherein interactive icon in the electronic file is overlaid upon at least a portion of the second

content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and instructions for outputting the composite signal.

78. The computer readable medium of claim 77, wherein the first channel further comprises an audio signal associated with the video signal.

79. (Previously presented) The computer readable medium of claim 77, wherein the first content comprises graphics and text.

80. (Previously presented) The computer readable medium of claim 77, wherein the video signal depicts a product.

81. (Previously presented) The computer readable medium of claim 80, wherein the first content comprises an interactive purchasing screen for the product.

82. (Previously presented) The computer readable medium of claim 81, further comprising:

instructions for receiving a signal indicative of a selection of the interactive icon; and instructions for processing the set-top box instructions to overlay the interactive purchasing screen for the product over at least a portion of the second content in the video signal.

83. (Previously presented) The computer readable medium of claim 77, wherein the composite signal comprises a primary video component comprising a moving video image and a secondary video component comprising a static video image.

84. (Previously presented) The computer readable medium of claim 77, further comprising:

instructions for processing the set-top box instructions to overlay an interactive catalog on at least a portion of the second content in the video signal using a catalog of products stored in the electronic file.

85. (Previously presented) The computer readable medium of claim 77, further comprising:

instructions for processing the set-top box instructions to overlay an interactive advertisement on at least a portion of the second content in the video signal using at least an advertisement stored in the electronic file.

86. (Previously presented) The computer readable medium of claim 83, further comprising:

instructions for processing the set-top box instructions to overlay information about current events on at least a portion of the static video image using information about the current events stored in the electronic file.

87. (Previously presented) The computer readable medium of claim 85, further comprising:

instructions for receiving a customer I.D. number associated with a permission level;  
instructions for comparing the permission level associated with the customer I.D. number to a permission level associated with the advertisement stored in the electronic file;  
and

instructions for generating a signal to overlay the interactive advertisement over at least a portion of the second content in the video signal when the permission level associated with the customer I.D. is greater than the permission level associated with the advertisement stored in the electronic file.

88. (Previously presented) The computer readable medium of claim 85, further comprising:

instructions for generating a signal to overlay the interactive advertisement on at least a portion of the second content in the video signal for a predetermined time period; and

instructions for generating a signal to overlay a second interactive advertisement on at least a portion of the second content in the video signal after the predetermined time period has elapsed.

89. (Previously presented) The computer readable medium of claim 81, further comprising:

instructions for outputting the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;

instructions for receiving a signal to purchase the product;

instructions for receiving a customer I.D. number associated with a permission level;

instructions for determining, by a set-top box, if the permission level associated with the customer I.D. number is greater than a permission level associated with the product; and

instructions for authorizing, by the set-top box, the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the product.

90. (Previously presented) The computer readable medium of claim 81, further comprising:

instructions for outputting the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;

instructions for receiving a signal to purchase the product, wherein the product has a price;

instructions for receiving a customer I.D. number associated with a permission level;

instructions for determining, by a set-top box, if the permission level associated with the customer I.D. number is greater than a permission level associated with the price of the product; and

instructions for authorizing, by the set-top box, the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the price of the product.

91. (Previously presented) The computer readable medium of claim 90, further comprising:

instructions for storing information indicative of the purchase of the product in a purchase buffer of the set-top box;

instructions for connecting to an e-commerce server to transfer the information indicative of the purchase of the product to the e-commerce server.

92. (Previously presented) A system, comprising:

a subsystem configured to receive an electronic file, wherein the electronic file includes an interactive icon and first content;

a subsystem configured to receive a video signal including second content;

a subsystem configured to generate instructions for a set-top box, wherein the instructions for the set-top box are configured to overlay the interactive icon in the electronic file on at least a portion of the second content in the video signal and the instructions for the set-top box are configured to display the first content if the interactive icon is selected;

a subsystem configured to combine the video signal, the instructions for the set-top box, and the electronic file together to form a first channel;

a subsystem configured to combine the first channel with a second channel to form a broadcast signal; and

a subsystem configured to transmit the broadcast signal to the set-top box.

93. (Previously presented) The system of claim 92, further comprising:

a subsystem configured to receive an audio signal associated with the video signal;

and

a subsystem configured to combine the audio signal, the video signal, the instructions for the set-top box, and the electronic file together to form a first channel.

94. (Previously presented) The system of claim 92, wherein the first content in the electronic file comprises graphics and text.

95. (Previously presented) The system of claim 92, wherein the video signal depicts a product.

96. (Previously presented) The system of claim 95, wherein the first content includes a purchasing screen for purchasing the product on at least a portion of the second content in the video signal.

97. (Previously presented) The system of claim 92, wherein the video signal includes a primary video component and a secondary video component, wherein the primary video component comprises a moving video image and the secondary video component comprises a static video image.



98. (Previously presented) The system of claim 97, wherein the electronic file includes information about a current event and the instructions for the set-top box are configured to overlay the information about the current event on the static video image.

99. (Previously presented) The system of claim 92, wherein the first content includes a catalog of products, and the set-top box instructions are configured to overlay the catalog of products on at least a portion of the second content in the video signal.

100. (Previously presented) The system of claim 92, wherein the electronic file includes an advertisement, and the set-top box instructions are configured to overlay the advertisement on at least a portion of the second content in the video signal.

101. (Previously presented) A set-top box, comprising:

- a signal input subsystem configured to receive a broadcast signal, wherein the broadcast signal includes a first channel, and a second channel;

- a demultiplexing subsystem configured to demultiplex the broadcast signal to extract the first channel, wherein the first channel includes set-top box instructions, a video signal including second content, and an electronic file including an interactive icon and first content;

- a processor configured to process the set-top box instructions to generate a composite signal, wherein the interactive icon in the electronic file is overlaid upon at least a portion of the second content in the video signal, wherein the set-top box instructions are configured to modify the generated composite signal to display the first content if the interactive icon is selected; and

- a signal output subsystem configured to output the composite signal.

102. (Previously presented) The set-top box of claim 101, wherein the first channel further comprises an audio signal associated with the video signal.

103. (Previously presented) The set-top box of claim 101, wherein the first content comprises graphics and text.

104. (Previously presented) The system of claim 101, wherein the video signal depicts a product.

105. (Previously presented) The set-top box of claim 104, wherein the first content comprises an interactive purchasing screen for the product.

106. (Previously presented) The set-top box of claim 105, further comprising:  
an interface configured to receive a signal indicative of a selection of the interactive icon; and  
the processor further configured to process the set-top box instructions to overlay the interactive purchasing screen for the product over at least a portion of the second content in the video signal.

107. (Previously presented) The set-top box of claim 101, wherein the composite signal comprises a primary video component comprising a moving video image and a secondary video component comprising a static video image.

108. (Previously presented) The set-top box of claim 101, further comprising:  
the processor further configured to process the set-top box instructions to overlay an interactive catalog on at least a portion of the second content in the video signal using a catalog of products stored in the electronic file.

109. (Previously presented) The set-top box of claim 101, further comprising:  
the processor further configured to process the set-top box instructions to overlay an interactive advertisement on at least a portion of the second content in the video signal using at least an advertisement stored in the electronic file.

110. (Previously presented) The set-top box of claim 107, further comprising:  
the processor further configured to process the set-top box instructions to overlay information about current events on at least a portion of the static video image using information about the current events stored in the electronic file.

111. (Previously presented) The set-top box of claim 109, further comprising:

an interface configured to receive a customer I.D. number associated with a permission level;

the processor further configured to compare the permission level associated with the customer I.D. number to a permission level associated with the advertisement stored in the electronic file; and

the processor further configured to generate a signal to overlay the interactive advertisement over at least a portion of the second content in the video signal when the permission level associated with the customer I.D. is greater than the permission level associated with the advertisement stored in the electronic file.

112. (Previously presented) The set-top box of claim 109, further comprising:

the processor further configured to generate a signal to overlay the interactive advertisement on at least a portion of the second content in the video signal for a predetermined time period; and

the processor further configured to generate a signal to overlay a second interactive advertisement on at least a portion of the second content in the video signal after the predetermined time period has elapsed.

113. (Previously presented) The set-top box of claim 106, further comprising:

the signal output subsystem further configured to output the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;

the interface configured to receive a signal to purchase the product;

the interface configured to receive a customer I.D. number associated with a permission level;

the processor configured to determine if the permission level associated with the customer I.D. number is greater than a permission level associated with the product; and

the processor configured to authorize the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the product.

114. (Previously presented) The set-top box of claim 106, further comprising:

the signal output subsystem further configured to output the composite signal, wherein the composite signal includes the interactive purchasing screen for the product;

the interface configured to receive a signal to purchase the product, wherein the product has a price;

the interface configured to receive a customer I.D. number associated with a permission level;

the processor configured to determine if the permission level associated with the customer I.D. number is greater than a permission level associated with the price of the product; and

the processor configured to authorize the purchase of the product when the permission level associated with the customer I.D. is greater than the permission level associated with the price of the product.

115. (Previously presented) The set-top box of claim 114, further comprising:

a memory configured to store information indicative of the purchase of the product in a purchase buffer of the set-top box; and

a network adaptor configured to connect to an e-commerce server to transfer the information indicative of the purchase of the product to the e-commerce server.

9. EVIDENCE APPENDIX

None.

**10. RELATED PROCEEDINGS APPENDIX**

None.

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PATENT

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